

SEAFOOD HANDLING AND SAFETY TIPS

The leading cause of most food-borne illnesses is improper food handling, preparation, and storage. To ensure good seafood quality and safety, follow these tips:

- When shopping, purchase seafood last and keep it cold. Remember to ask your grocer to pack your seafood on ice for the trip home. Take a cooler if necessary to keep seafood cold.



- Store seafood in leak-proof containers for up to three days at 34-38 degrees F in coldest part of refrigerator or up to ten months frozen. Shelf life will vary depending upon product form and species. Live (in the shell) oysters or clams should be stored in containers with the lid slightly ajar to allow air circulation. Refrigerate live product for up to three days. Live oysters and clams will naturally open their shells during storage. Check for viability by tapping the open shells lightly. Discard any that do not close as they are not alive. If you have seafood storage questions, ask your seafood supplier.

- Thaw frozen seafood in the refrigerator, never at room temperature. To use frozen seafood immediately, thaw under cold running water or in the microwave using the defrost setting.

- Prevent cross-contamination between raw seafood products and clean surfaces or other foods. Always wash your hands before and after handling raw seafood. Do not drip seafood juices on counters, utensils or other foods. Thoroughly wash any containers used for raw seafood before reusing.

- When in doubt, throw it out! Seafood should have a fresh ocean smell, not a strong fishy odor. Do not taste a food that you think is spoiled.

WHICH SEAFOOD IS BEST FOR YOU?

All seafood is good for you! Lean fish such as flounder, grouper, mahi-mahi, catfish, tilapia and shellfish are excellent sources of protein and are low in fat. Fish that have more fat, such as mackerels, swordfish, bluefish and trout, are recommended for their high levels of omega-3 fatty acids.

Studies indicate omega-3 fatty acids can decrease the risk of cardiovascular diseases, provide some protection against bronchitis and emphysema associated with smoking and are necessary for optimal brain, nerve and eye development in children.



Shellfish can also be an important part of a well-rounded, healthy diet. Shellfish have high protein and low levels of fat and saturated fat. Most shellfish, clams, crabs and oysters contain insignificant amounts of fat and saturated fat and are low in cholesterol.

Research emphasizes that reducing the total amount of fat and saturated fat is generally more important than limiting cholesterol. Shrimp and lobster are exceptionally low in fat and saturated fat, however, they do contain higher amounts of cholesterol. Unless you are on a restricted low-cholesterol diet, you can eat shrimp or any other shellfish more than once a week and still stay within the dietary recommendations limiting cholesterol intake to less than 300 milligrams a day. For example, a moderate portion of shellfish (9-12 medium size shrimp) contains 150 milligrams of cholesterol. Adding shrimp and other shellfish to salads, stir-fry and pasta entrees is a nutritious way to reduce the amount of cholesterol in each serving. Mixed dishes are also a great way to stretch seafood ingredients.

Advisory: The FDA advises that pregnant women, women who may become pregnant and small children not eat king mackerel, swordfish, shark or tilefish as they may contain high levels of mercury. The FDA and EPA advise this group to eat other fish and shellfish to enjoy the benefits of seafood. For information go to the FDA food safety website: www.cfsan.fda.gov or the EPA website: www.epa.gov/waterscience/fish.

Florida's seafood industry is dedicated to supplying you with wholesome, nourishing and affordable seafood products. Look for the "Fresh From Florida" or "From Florida" logos on signs, brochures and packaging in your grocery store or seafood market. Always ask for Florida seafood and tell your grocer that buying Florida products is important to you! "Fresh from Florida" seafood information, recipes and brochures can be found on our web site at FL-Seafood.com.



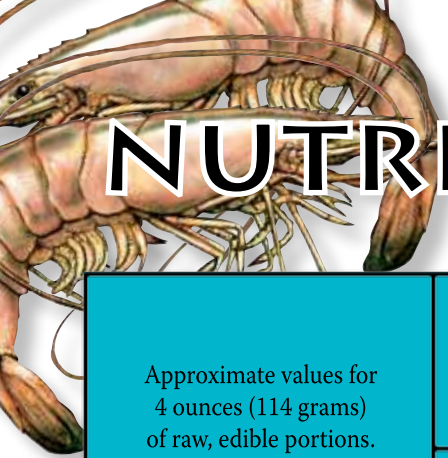
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FLORIDA SEAFOOD *Healthy Facts*



Florida Department of
Agriculture and Consumer Services



NUTRITIONAL VALUES FOR SEAFOOD

Approximate values for 4 ounces (114 grams) of raw, edible portions.	Calories	Calories from Fat	Total Fat	Saturated Fat	Cholesterol	Sodium	Total Carbohydrate**	Protein	Calcium*	Iron*	Omega-3 Fatty Acid
			g	g	mg	mg	g	g	%DV	%DV	g
AMBERJACK	120	20	2	0	50	40	0	24	4	4	0.26
BLUEFISH	130	30	3	1	65	65	0	23	0	4	0.77
CATFISH (Farm Raised)	110	25	3	0.5	60	70	0	21	6	4	0.37
CLAMS	50	10	1	0	45	65	3	10	8	20	0.15
CRAB, BLUE	90	10	1	0	80	320	0	19	10	6	0.32
CRAB, GOLDEN <small>Cooked 3oz.-85g.</small>	80	15	1.5	0	50	280	0	16	8	2	NA
CRAB, STONE <small>Cooked 3oz.-85g.</small>	60	0	0	0	45	300	0	15	4	0	NA
FLOUNDER	100	10	1	0	70	55	0	23	0	2	0.21
GROUPER	110	20	2	0	55	65	0	23	4	6	0.26
LOBSTER, SPINY	90	15	1.5	0	120	140	1	18	6	8	0.38
MACKEREL, KING	120	15	2	0.5	55	65	0	23	4	10	0.3
MACKEREL, SPANISH***	150	50	6	2	85	55	0	23	0	2	1.1
MAHI-MAHI	100	10	1	0	80	100	0	22	0	6	0.11
MULLET	130	35	4	1.5	55	85	0	21	4	6	0.35
OYSTERS	80	20	2	0.5	55	190	4	9	10	45	0.61

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			g	g	mg	mg	g	g	%DV	%DV	g
SCALLOPS	100	10	1	0	40	185	3	18	2	2	0.20
SHARK***	100	5	0.5	0	40	80	1	22	4	6	0.87
SHRIMP	120	15	1.5	0	155	170	0	23	6	8	0.49
SHRIMP, ROCK	110	10	1	0.5	140	380	0	21	25	8	NA
SNAPPER	110	10	1	0	45	70	0	23	4	0	0.32
SWORDFISH***	130	35	4	1	55	105	0	23	0	6	0.83
TILAPIA	110	25	2.5	0.5	55	60	1	21	6	2	0.14
TILEFISH***	110	15	2	0	55	75	0	22	2	2	0.43
TUNA, YELLOWFIN	130	20	2	0.5	50	70	0	26	0	4	0.23

*DV = Daily Values
** Dietary fiber and sugars exist in insignificant amounts in seafoods.
*** Fish and shellfish are good sources of high quality protein, are low in fat and have other health benefits. Health experts recommend we include 2 servings a week in our diet. However, FDA advises that pregnant women, women who may become pregnant and small children not eat king mackerel, swordfish, shark or tilefish as they may contain high levels of mercury. The FDA and EPA advise this group to eat other fish and shellfish to enjoy the health benefits of seafood. For additional information go to these web sites: FDA at www.cfsan.fda.gov/seafood1.html or EPA at www.epa.gov/ost/fish.

Source: Sullivan, A.L. and Otwell, W.S. 1991
A Nutrient Database for Southeastern Seafoods: A Comprehensive Nutrient and Nomenclature Handbook for Selected Southeastern Species. Composition of Foods: Finfish and Shellfish, USDA Handbook 8-15 Compiled by the Bureau of Seafood and Aquaculture, in cooperation with Laura R. Garrido, the University of Florida Food Science and Human Nutrition Department. Updated January 2006

SEAFOOD COOKING TIPS

- Always marinate seafood in the refrigerator, not at room temperature.
- A general rule for cooking fish is 10 minutes per inch at 400 to 450 degrees F, turning the fish halfway through the total cooking time. Fish less than 1/2 inch thickness does not need to be turned.
- If fish is cooked in a sauce or foil, add five minutes to the total cooking time. If you choose to cook it frozen, the cooking time should be doubled. Fish is done when the flesh becomes opaque and flakes easily at the thickest part.



- Scallops and shrimp become opaque and firm when fully cooked. One pound of medium shrimp added to boiling water should be simmered for three to five minutes or steamed for three to five minutes. Scallops should be broiled for three to five minutes. Do not overcook.
- Oysters and clams should be cooked, steamed or broiled until the shells pop open; fried in oil for three to four minutes at 375 degrees F; or baked for 10 minutes at 450 degrees F. Note: There is a risk with consuming raw oysters. If you have chronic illness of the liver, stomach or blood, or have immune disorders, you are at greater risk of serious illness from eating raw oysters and should eat fully cooked oysters. People in high-risk groups insistent on consuming raw oysters should consider only oysters that are labeled “processed to reduce *Vibrio vulnificus* to non-detectable levels.” If unsure of your risk, consult a physician.

INFORMATION AND RECIPES ONLINE AT FL-SEAFOOD.COM

